

An appealing amphibian, the Short Sealand (two Gipsy Queen) was completed in December. During the year the design of a Leonides-powered version was put in hand.

Foundations for '48

were the Newbury Eon and Auster Avis, both of which made their debut at Radlett. The Eon, which was still under development at the end of the year, is an attractive-looking low-wing monoplane, with a tricycle undercarriage. Three or four passengers are carried on the power of a Blackburn Cirrus Minor engine. The prototype is of wooden construction but a metal version is foreseen.

Arriving unheralded at Radlett, the Auster Avis was seen to be a new design, though closely resembling the Mark VI, in common with which it has flaps of aerofoil section. This promising little machine was produced to carry four persons and 100 lb of luggage in comfort at a cruising speed of 100 m.p.h. Maximum speed and range respectively are 120 m.p.h. and 500 miles.

Two rotating-wing aircraft, the first flights of which can be recorded with special satisfaction, were the Bristol 171 helicopter and the Fairey Gyrodyne, in both of which the Alvis Leonides engine will be standardized.

The most unusual feature of the Gyrodyne is that torque reaction and directional control are obtained by an air-screw on one of the short stub wings. The thrust of this adds its quota to forward propulsion. Another point is that the main rotor blades are always working in the autorotative pitch range. In its final form the Gyrodyne should have a cruising speed of 100 m.p.h. and a range of 230 miles.

Generically akin to the classic Sikorsky designs, the Bristol 171 differs in having rotor blades mounted on flex-

October saw the Bristol Brabazon moved from the shop in which the fuselage and centre section were built to the vast new assembly hall. Seen free of constructional paraphernalia, the "Brab" impressed by its beauty of line.

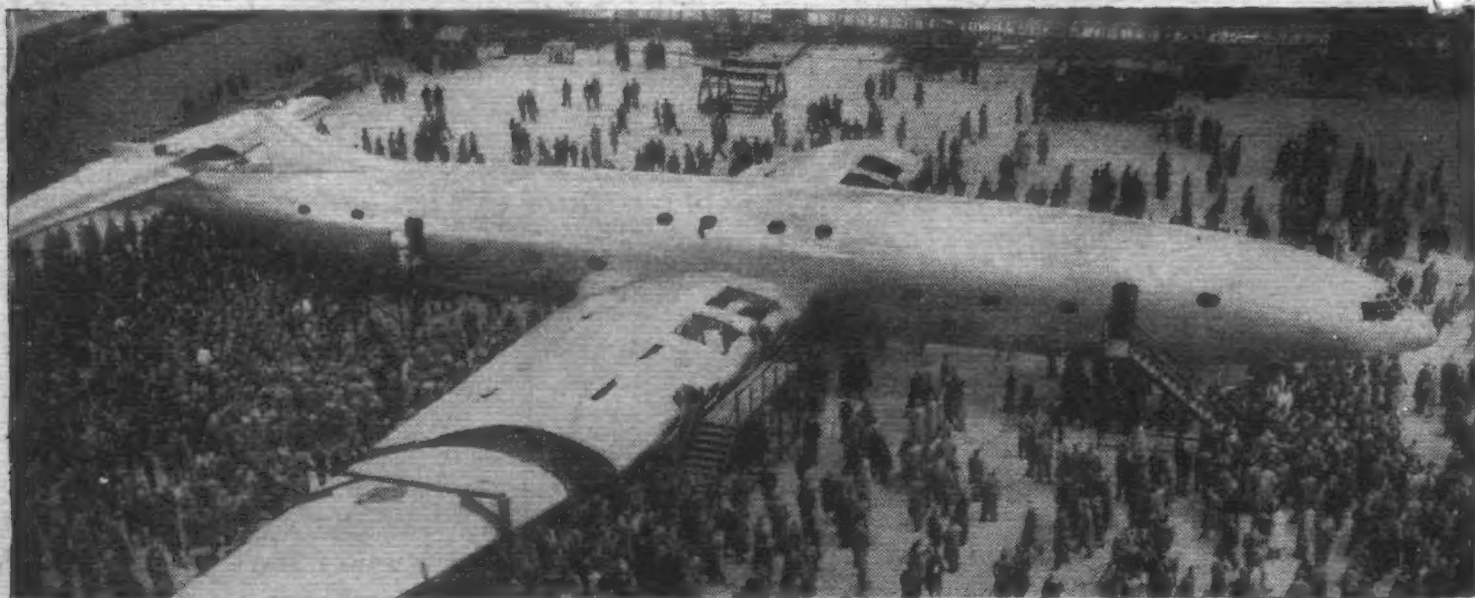
ible tie-rods and pitch control by means of a "spider." This machine is planned for three passengers and is of notably clean design.

The development and testing of research aircraft brought forth success and disappointment in equal measure. The initial trials, off the Scilly Isles, with a Vickers transonic research model must be recorded as a failure; on the other hand, the de Havilland Company and Ministry of Supply acquired invaluable experience with the swept-wing, semi-tail-less D.H. 108 and additional data were forthcoming from the three General Aircraft towed gliders—two of "V" and one of "U" plan form. After an exasperating delay, for which hydraulic trouble was principally responsible, the A.W. 52, a near flying wing powered by two Rolls-Royce Nene turbo-jets and having a calculated maximum speed of about 500 m.p.h., was flown successfully. Meanwhile a second machine, essentially similar in design, was nearing completion.

It may be recalled that the basic aerodynamic design of the A.W. 52 was



Delayed by hydraulic troubles, the first A.W. 52 (above) flew later in the year. Vital tests of the D.H. 108 (below) continued and the Nene-Vampire (right) reached 51,000 ft.



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